Claims

1   1.   A waterproofing membrane composition which is strong, workable and easy
2 to apply, flexible, passes ASTM D4068 and cures quickly allowing for flood testing
3 after 24 hours at 70°F comprising:
4   a flexible epoxy resin;
5   a flexible curing agent;
6   sand or other inert filler; and
7   an effective amount of a poly (p-phenylene terephthalamide) polymer fiber ("p-
8   aramid") and/or poly(m-phenylene terephthalamide) polymer fiber ("m-
9   aramid"), preferably a fibrillated p-aramid polymer.

1   2.   The composition of claim 1 further comprising an epoxy flexibilizer which is
2 reacted when cured with the flexible epoxy resin.

1   3.   The composition of claim 2 further comprising an epoxy reactive diluent
2 which is used to reduce the viscosity of the composition.

1   4.   The composition of claim 3 wherein the flexible epoxy resin is a glycol
2 glycidyl ether.

1   5.   The composition of claim 4 wherein the flexible curing agent is a polyamine.

1   6.   The composition of claim 5 wherein the polyamine is a polyetherpolyamine.

1   7.   The composition of claim 6 wherein the epoxy flexibilizer is an acrylate
2 functional urethane resin.

1   8.   The composition of claim 7 wherein the epoxy reactive diluent is an
2 aliphatic glycidyl ether.

1   9.   The composition of claim 8 wherein the polymer fiber is poly(p-phenylene
2   terephthalamide).

1   10.   A method of applying a waterproofing composition to a substrate
2   comprising:
3   providing a substrate to be waterproofed;
4   applying the composition of claim 1 to the substrate surface; and
5   curing the composition.

1   11.   The method of claim 10 wherein the composition is the composition of
2   claim 2.

1   12.   The method of claim 10 wherein the composition is the composition of
2   claim 3.

1   13.   The method of claim 10 wherein the composition is the composition of
2   claim 4.

1   14.   The method of claim 10 wherein the composition is the composition of
2   claim 5.

1   15.   The method of claim 10 wherein the composition is the composition of
2   claim 6.

1   16.   The method of claim 10 wherein the composition is the composition of
2   claim 7.

1   17.   The method of claim 10 wherein the composition is the composition of
2   claim 8.

1   18.   The method of claim 10 wherein the composition is the composition of
2   claim 9.